IN THE CLAIMS:

Please cancel Claims 1-158 and 165-229 without prejudice to or disclaimer of the subject matter presented therein.

Please add Claims 230-249 as follows.

1.-229. (Cancelled)

230. (New) An apparatus for outputting position information corresponding to light having a cyclically varying intensity, said apparatus comprising:

a detection device that receives the light, said detection device comprising a plurality of photoelectric conversion elements, arranged in a predetermined physical array;

difference signal generating means for generating, for each photoelectric conversion element, a difference signal corresponding to a difference between an output of the photoelectric conversion element when the light cycle is at a first point and an output of the photoelectric conversion element when the light cycle is at a second point, the first point being at a higher intensity than the second point;

threshold setting means for setting a threshold value on the basis of a level of said difference signal obtained from each photoelectric conversion element;

selection means for selecting effective photoelectric conversion elements by comparing said threshold value with the difference signal generated by said difference signal generating means; and

output means for outputting the difference signals corresponding to the selected

effective photoelectric conversion elements.

231. (New) An apparatus according to claim 230, wherein said threshold setting means sets the threshold value based on the difference signals corresponding to two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

232. (New) An apparatus according to claim 230, wherein said threshold setting means sets the threshold value at the difference signal corresponding to the greater difference signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

233. (New) An apparatus according to claim 230, wherein said threshold setting means sets the threshold value at the difference signal corresponding to the smaller difference signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

234. (New) An apparatus according to claim 230, further comprising:

difference signal detecting means for detecting the photoelectric conversion element having the largest difference signal,

wherein said threshold setting means sets the threshold value based on the difference signals of a predetermined number of photoelectric conversion elements adjacent to the photoelectric conversion element having the largest difference signal.

235. (New) An apparatus according to claim 230, further comprising:

pixel calculation means for calculating which photoelectric conversion element the light is incident on based on the difference signals outputted by the effective photoelectric conversion elements.

236. (New) An apparatus according to claim 230, wherein said pixel calculation means calculates a centroid pixel number of a selected effective signal, further comprising position calculation means for calculating a position coordinate of a designation device based on an output result of said pixel calculation means.

237. (New) An apparatus according to claim 230, further comprising;

storage means for storing an output result of said pixel calculation means, which is obtained at the light of a predetermined position on the screen, and information on said predetermined position.

238. (New) An apparatus according to claim 230, further comprising:

first integration means for integrating the output of the photoelectric conversion element when the light cycle is at a first point;

second integration means for integrating the output of the photoelectric conversion element when the light cycle is at a second point; and

difference signal generating means for generating, for each photoelectric conversion element, a difference signal between the integrated output signal of when the light

cycle is at the first point and the integrated output signal of when the light cycle is at the second point.

239. (New) An apparatus according to claim 230, wherein the light comprises a light-emitting element that projects a light spot onto the screen surface.

240. (New) An apparatus according to claim 230, wherein the light comprises a light-emitting element positioned adjacent to the screen surface.

241. (New) An apparatus according to claim 230, wherein said detection means receives light diffused through the screen surface from the light.

242. (New) An apparatus for outputting position information corresponding to light having a cyclically varying intensity, said apparatus comprising:

a detection device that receives the light, said detection device comprising a plurality of photoelectric conversion elements, arranged in a predetermined physical array;

difference signal generating means for generating, for each photoelectric conversion element, a difference signal corresponding to a difference between an output of the photoelectric conversion element when the light cycle is at a first point and an output of the photoelectric conversion element when the light cycle is at a second point, the first point being at a higher intensity than the second point;

first threshold setting means for setting a first threshold value on the basis of a mean value of output of said difference signal obtained from each photoelectric conversion

element;

second threshold setting means for setting a second threshold value to either of the difference signals outputted by a photoelectric conversion element having the largest difference signal and two photoelectric conversion elements, which are equally spaced by the predetermined number of pixels from the photoelectric conversion element having the largest difference signal;

selection means for selecting effective photoelectric conversion elements by comparing said first threshold value and said second threshold value with the difference signal generated by said difference signal generating means; and

output means for outputting the difference signal obtained from the selected effective photoelectric conversion elements.

243. (New) An apparatus according to claim 242, further comprising:

determining means for determining whether there is a designation device or not, by comparing the first threshold value set by said first threshold setting means with the second threshold value set by said second threshold setting means.

244. (New) A method for controlling an apparatus for outputting position information corresponding to light having a cyclically varying intensity, comprising the step of:

detecting by a detection device that receives the light, said detection device comprising a plurality of photoelectric conversion elements, arranged in a predetermined physical array;

generating, for each photoelectric conversion element, a difference signal corresponding to a difference between an output of the photoelectric conversion element when the light cycle is at a first point and an output of the photoelectric conversion element when the light cycle is at a second point, the first point being at a higher intensity than the second point;

setting a threshold value on the basis of a level of said difference signal obtained from each photoelectric conversion element;

selecting effective photoelectric conversion elements by comparing said threshold value with the difference signal generated in said difference signal generating step; and

outputting the difference signals corresponding to the selected effective photoelectric conversion elements.

245. (New) A method for controlling an apparatus for outputting position information corresponding to light having a cyclically varying intensity, comprising the step of:

detecting by a detection device that receives the light, said detection device comprising a plurality of photoelectric conversion elements, arranged in a predetermined physical array;

generating, for each photoelectric conversion element, a difference signal corresponding to a difference between an output of the photoelectric conversion element when the light cycle is at a first point and an output of the photoelectric conversion element when the light cycle is at a second point, the first point being at a higher intensity than the second point;

setting a first threshold value on the basis of a mean value of output of said difference signal obtained from each photoelectric conversion element;

setting a second threshold value to either one of the outputted difference signals of a photoelectric conversion element having the largest difference signal and two photoelectric conversion elements equally spaced by the predetermined number of pixels from the photoelectric conversion element having the largest difference signal;

selecting effective photoelectric conversion elements by comparing said first threshold value and said second threshold value with the difference signal generated in said difference signal generating step; and

outputting the difference signals obtained from the selected effective photoelectric conversion elements.

246. (New) A coordinate input apparatus for outputting position information corresponding to light having a cyclically varying intensity, said apparatus comprising:

a detection device that receives the light, said detection device comprising a plurality of photoelectric conversion elements, arranged in a predetermined physical array;

difference signal generating means for generating, for each photoelectric conversion element, a difference signal corresponding to a difference between an output of the photoelectric conversion element when the light cycle is at a first point and an output of the photoelectric conversion element when the light cycle is at a second point, the first point being at a higher intensity than the second point;

threshold setting means for setting a threshold value on the basis of a level of said difference signal obtained from each photoelectric conversion element;

selection means for selecting effective photoelectric conversion elements by comparing said threshold value with the difference signal generated by said difference signal generating means; and

output means for outputting the difference signals corresponding to the selected effective photoelectric conversion elements.

247. (New) A coordinate input apparatus for outputting position information corresponding to light having a cyclically varying intensity, said apparatus comprising:

a detection device that receives the light, said detection device comprising a plurality of photoelectric conversion elements, arranged in a predetermined physical array;

difference signal generating means for generating, for each photoelectric conversion element, a difference signal corresponding to a difference between an output of the photoelectric conversion element when the light cycle is at a first point and an output of the photoelectric conversion element when the light cycle is at a second point, the first point being at a higher intensity than the second point;

first threshold setting means for setting a first threshold value on the basis of a mean value of output of said difference signal obtained from each photoelectric conversion element;

second threshold setting means for setting a second threshold value to either one of the outputted difference signals of a photoelectric conversion element having the largest difference signal and two photoelectric conversion elements equally by spaced the predetermined number of pixels from the photoelectric conversion element having the largest difference signal;

selection means for selecting effective photoelectric conversion elements by comparing said first threshold value and said second threshold value with the difference signal generated by said difference signal generating means; and

output means for outputting the difference signal obtained from the selected effective photoelectric conversion elements.

248. (New) An apparatus according to claim 230, further comprising a display device.

249. (New) An apparatus according to claim 242, further comprising a display device.